

Application Number: 09/574,519

Docket: 7164.01

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an at least one discrete deposition domain deposited on said surface, said deposition domain being smaller than one micron squared in total area and deposited at a pre-selected location on the surface, the deposition domain including a long chain biomolecular deposition material having the capacity to bind the target material.

BA

(Twice Amended) An array of deposition domains for the detection of one or more predetermined target materials comprising:

a solid glass substrate including a substantially flat surface; and

an at least one discrete domain deposited on the surface of the substrate, each domain being deposited at a known location and being smaller than one micron squared in area, each domain further including at least one type of molecule with a binding affinity for one or more of the target materials, at least two domains containing different biologically or chemically based molecules.

BD TO

(Twice Amended) A molecular array for characterizing molecular interaction events, comprising:

(a) a substrate; and

(b) at least one molecular deposition domain on said substrate wherein the spatial address of the domain is less than one micron squared in area, each domain includes a biologically or chemically based molecule directly deposited on the substrate at a pre-selected location, at least two domains containing different biologically or chemically based molecules.

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(Twice Amended) A molecular array for characterizing molecular interaction events,

comprising:

- (a) a substrate; and
- (b) at least one molecular deposition domain on said substrate wherein the spatial address of the domain is less than one micron squared in area, each domain includes a biologically or chemically based molecule directly deposited on the substrate at a pre-selected location, and wherein the molecular deposition domain interacts with a molecular deposition probe having at least one microsphere attached thereto.